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<i>Address :</i>	Université Catholique de Louvain Institut de Statistique, Biostatistique et Sciences Actuarielles, ISBA-LIDAM 20, Voie du Roman Pays 1438 Louvain-La-Neuve Belgique	25, Rue à la Marne 1421 Ophain BSI Belgique
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## CATHERINE LEGRAND

### Associate Professor - Biostatistician

Nationality: Belgian  
Date of birth: 1<sup>st</sup> June 1976  
Children: Adèle (2011), Hugo (2015)

#### PRINCIPAL AREA OF EXPERTISE

- ✓ Statistical expertise in research and applied projects
- ✓ Clinical trials set up and analysis (mainly oncology and vaccine)
- ✓ Independent Data Monitoring Committee and interim analyses
- ✓ Survival Data Analysis (including cure models, competing risks models and frailty models)
- ✓ Teaching statistical course (bachelor and master level)
- ✓ Statistical training for non-statisticians

#### CURRENT POSITION (SINCE SEPTEMBER 2007)

2015-Present **Associate Professor (*Professeur*)**  
2007-2015 **Assistant Professor (*Chargé de Cours*)**

**Institut de statistique, biostatistique et sciences actuarielles (ISBA)**  
**Louvain Institute for Data Analysis and Modeling (LIDAM) – *previously Institute for Multidisciplinary Research in Quantitative Modelling and Analysis (IMMAQ)***  
**Université catholique de Louvain (UCL), Louvain-la-Neuve, Belgium**

- ✍ Courses at the Bachelor and Master Level [2007-present]
- ✍ Responsable Académique de Programme Master en Statistique / Biostatistique [2007-2019]
- ✍ President of the Louvain School of Statistics, Biostatistics and Actuarial Sciences (LSBA) [2018-2019]

#### PAST EXPERIENCE

September 2009 - June 2016 **Center for Statistics. Hasselt University (UHasselt). Hasselt, Belgium.**  
✍ Invited Professor [5%]

September 2005 - June 2007 **Université Libre de Bruxelles (ULB), Brussels, Belgium.**  
✍ Supply post (Suppléance Mme Marie-Pierre Malice) [10%]

January 2006 - August 2007: **Biometrician – Merck Sharp & Dohme (Europe), Inc**  
**Biostatistics and Research Decision Sciences**  
**Clos du Lynx, 5 – B1200 Brussels, Belgium.**  
✍ Design, set-up, conduct, analysis and publication of phase II to IV clinical trials – Respiratory Disease (asthma, EIB) and Infectious Disease (HIV)  
✍ Data Monitoring Committee (DMC) Support Group Task Force

- January 2000  
– January 2006: **Statistician – European Organisation for Research and Treatment of Cancer (EORTC)**  
**Av. E. Mounier 83/11 – B1200 Brussels, Belgium.**  
✍ Design, set-up, conduct, analysis and publication of phase I/II/III cancer clinical trials – Lung Cancer Group, Breast Cancer Group, Elderly Task Force.  
✍ Treatment Outcome research Group: applied research on heterogeneity in multicenters clinical trials, methodological research on survival models including random effects  
✍ Independent Data Monitoring Committee (IDMC) Coordinator
- October 1998  
– December 1999: **Fellow Statistician – European Organisation for Research and Treatment of Cancer (EORTC)**  
**Av. E. Mounier 83/11 – B1200 Brussels, Belgium.**  
✍ *Analyses of Breast Cancer Phase III clinical trials accounting for competing risks*  
✍ *Treatment Outcome research Group: applied research on heterogeneity in multicenters clinical trials, methodological research on survival models including random effects*
- September 1998  
– August 1998: **Statistician – Data Investigation Company European (DICE) Brussels, Belgium**  
✍ *Preparation of Patients Individual Listings*

## EDUCATION

- September 2000:  
– November 2006 **Doctoral thesis in Mathematics.**  
**Center for Statistics. Hasselt University (UH).**  
Promoters: Prof. P. Janssen, Prof. L. Duchateau  
Dissertation: "Assessing heterogeneity in multicenter clinical trials using the frailty model".
- September 1994  
– June 1998: **Licence en Sciences Mathématiques, Orientation Statistique**  
**Université Libre de Bruxelles (ULB).**  
**Mention: *Grande Distinction* (June 1998)**  
Dissertation: "Analyse discriminante: théorie statistique et application en médecine".  
Promoters: Prof. J.J. Droesbeke, Prof. V. de Maertelaer  
Selected by the mathematics department of the ULB for the "Prix de l'Association des Anciens des Sciences de Bruxelles".

## COMPUTER SKILLS

- SAS, R, JMP, East
- Microsoft Office, Latex

## LANGUAGES

- French: Mother tongue  
English: Proficient user (reading/writing skills)  
Independent user (verbal skills)

## INTERESTS

- Horse Riding (1er Degré).  
Certificate of Art of Diction, Académie de Musique de Braine-L'Alleud.  
Certificate of Art of Declamation, Académie de Musique de Waterloo.

## TEACHING RELATED ACTIVITIES

### COURSES

#### ➤ COURSE BACHELOR DEGREE – UNIVERSITÉ CATHOLIQUE DE LOUVAIN (UCLouvain)

2007-Present	LVETE1262: Biostatistique [45h-30h, 7 ECTS]
2012-Present	WMDS1104 : Eléments de statistiques et de mathématiques appliquées aux sciences de la santé [30h-15h (cotutelle), 3 ECTS]
2010-2016	WFARM1246 : Traitement Statistique des Données [15h-15h, 3 ECTS]

#### ➤ COURSE MASTER DEGREE – UNIVERSITÉ CATHOLIQUE DE LOUVAIN (UCLouvain)

2016-Present	LSTAT2230: Advanced Survival Models [15h-0h, 3 ECTS]
2007-Present	LSTAT2210: Modèles linéaires avancés [15h-5h, 4 ECTS]
2007-Present	LSTAT2330: Statistique des essais cliniques [22.5h-7.5h (cotutelle) , 5 ECTS]
2007-Present	LSTAT2360: Programmation de Base en SAS [7.5h-10h, 5 ECTS]
2007-Present	LSTAT2370: Programmation avancée en SAS [7.5h-25h, 6 ECTS]
2007-Present	LSTAT3320: Applied Statistics Workshops [15h-0h (cotutelle), 3 ECTS]
2007-2016	LSTAT3310: Statistical Seminar [15h-0h (cotutelle), 5 ECTS]
2007-2016	LSTAT3140: Special topics in Biostatistics [15h-0h, 3 ECTS]
2007-2016	WESP2222: Analyse longitudinale : régression linéaire et logistique dans les études d'observation [15h-15h (cotutelle), 5 ECTS]

#### ➤ COURSE MASTER DEGREE – OTHER UNIVERSITIES

2009-2016	Survival Data Analysis [30h-0h (cotutelle)], UHasselt
2005-2007	Plans Expérimentaux [30h-30h], ULB

### PROMOTION OF MASTER THESIS/INTERNSHIP

#### ➤ MASTER THESIS

1. Audrey Collée. UCL, LSBA, 2007-2008. *Application de techniques de modélisation statistique à une base de données épidémiologique : étude sur la prévalence des problèmes d'audition à la défense belge*. Promotors : C. Legrand, B. Govaerts.
2. Anne-Laure Buisson, UCL, LSBA, 2007-2008. *Analyses statistiques de données ORL aux Cliniques Universitaires Saint-Luc*. Promotors : C. Legrand, N. Deggouj (Cliniques universitaires Saint-Luc)
3. Védaste Ndahindwa. UCL, LSBA, 2009-2010. *The use, validation and Interaction tests of biomarkers in cancer clinical trials*. Promotors: C. Legrand, M. Buyse (IDDI)
4. Erik Doffagne, UCL, LSBA, 2010-2011. *Comparative analysis of softwares and methods for computing sample size and implementing randomization in clinical trials*. Promotor: C. Legrand
5. Frédéric Hendriks. UCL, LSBA, 2010-2011. *Validation de marqueurs prédictifs : Etudes des designs d'essais cliniques*. Promotor: C. Legrand
6. Alexandre Audibert. UCL, LSBA, 2011-2012. *Designs Adaptatifs pour les essais cliniques*. Promotor: C. Legrand
7. Samantha Cambier. UCL, LSBA, 2011-2012. *Information ajoutée lors de la prise en compte des gènes lors du diagnostic du cancer*. Promotors: C. Legrand and S. Michiels (Institut Jules Bordet)
8. Maïlis Amico. UCL, LSBA, 2012-2013. *De l'introduction d'observations non à risque en analyse de survie*. Promotors: C. Legrand and I. Van Keilegom (UCL, LSBA)
9. Sabrina El Bachiri. UCL, LSBA, 2012-2013. *Le modèle conjoint à classes latentes. Théorie et application au cancer de la prostate*. Promotor: C. Legrand
10. Jerome King. UCL, LSBA, 2013-2015. *L'étude SHARE, une opportunité pour les statisticiens ?* Promotor: C. Legrand.

11. Maud Hennion. UCL, LSBA, 2014-2015. *Modélisation conjointe de la survie et d'un biomarqueur continu par le modèle à effets aléatoire*. Promotor: C. Legrand
12. Lena Wersand. UCL, LSBA, 2014-2015. *Comparison of different statistical analysis methods in a vaccine trial for formulation selection*. Promotors: C. Legrand and F. Nozay (Gsk Biologicals)
13. Séverine Henrard. UCL, LSBA, 2014-2015. *Etude des designs d'essais cliniques pour les populations à recrutement/consentement difficile*. Promotor: C. Legrand
14. Duc Nam Nguyen. UCL, LSBA, 2016-2018. Joint models for generalized linear mixed model with binary outcome and time-to-event analysis. Promotor: C. Legrand
15. Maroa Hernandez Garcia. UCL, LSBA, 2017-2018. Application of Self-Organising Maps to Belgian Nursing Care Data. Promotor: C. Legrand and J. Mestdagh (FPS Health)
16. Coline Nadin. UCL, MATH, 2017-2018. De la statistique descriptive à la modélisation probabiliste: réflexions didactiques. Promotor : C. Legrand and C. Hauchart (MATH).
17. Eva Cantagallo. UCL, LSBA, 2018-2019. *Extension of the generalized pairwise comparisons approach to competing risks data in the context of oncology phase III clinical trials*. Promotor: C. Legrand and L. Collette (EORTC)
18. Emmanuel Niyigena. UCL, LSBA, 2018-2019. *Modèles compartimentaux en Pharmacocinétique par Inférence Bayésienne*. Promotor : C. Legrand
19. Julia Langer. UCL, LSBA, 2018-2019. Using prognostic factors in the design and analysis of clinical trials : a simulation study. Promoter: C. Legrand and Perrone Bamps (IDDI)

#### ► INTERNSHIPS

1. Anne-Laure Buisson. UCL, LSBA 2007-2008. *Analyses statistiques de données ORL Aux cliniques universitaires Saint-Luc*. Promotor: C. Legrand. Maître de stage: Naïma Deggouj (Cliniques Universitaires Saint-Luc)
2. Frédéric Hendrickx. UCL, LSBA, 2010-2011. *Programmation de courbes de survie en SAS pour visualisation en Excel*. Promotor: C. Legrand. Maître de stage: Marie-Pierre Debroas (IDDI).
3. Alexandre Audibert. UCL, LSBA, 2010-2011. *Développement d'un outil de calcul de taille d'échantillon pour les phases II et autres projets de consultance*. Promotor: C. Legrand. Maître de stage: Alain Guillet (Cellule de Support en Méthodologie et Calcul Statistique, SMCS, UCL)
5. Samantha Cambier. UCL, LSBA, 2011-2012. *Analyse des données de biopuces d'un projet de recherche translationnelle dans le cancer du sein*. Promotor: C. Legrand. Maître de stage: Stefan Michiels (Institut Jules Bordet)
7. Mailis Amico. UCL, LSBA , 2012-2013. *Modèles de prédiction de la maladie de la grippe à partir de symptômes et facteurs de risque de la grippe, basé sur les résultats en essai clinique*. Promotor: C. Legrand. Maître de stage: Christelle Durand (GSK Vaccines)
8. Sabrina El Bachiri. UCL, LSBA, 2012-2013. *Using of SAS data integration studio for CDISC conversion projects (pharmaceutical sector)*. Promotor: C. Legrand. Maître de stage: Tina Apers (Business and Decision)
9. Perceval Sondag. UCL, LSBA, 2012-2013. *Inthec household survey*. Promotor: C. Legrand. Maître de stage: Niko Speybroeck (Ecole de Santé Publique, ESP, UCL)
10. Anais Montenair. UCL, LSBA, 2018-2019. Development of a SAS macros library for inferential statistics of survival, discrete, and continuous data. Promotor: C. Legrand. Maître de stage: Geneviève Sturbois (IDDI).

#### ADMINISTRATIVE RESPONSIBILITIES AT UCLouvain

2007-2009	Secrétaire du Jury Master en Statistique, Orientation Générale et Biostatistique, Louvain School of Statistics, Biostatistics and Actuarial Sciences (LSBA)
2007-2019	Responsable Académique de Programme – Master en Statistique, Orientation Générale et Biostatistique, Louvain School of Statistics, Biostatistics and Actuarial Sciences (LSBA)
2007-Present	Conseillère aux études - Master en Statistique, Orientation Biostatistique, Louvain School of Statistics, Biostatistics and Actuarial Sciences (LSBA)
2018-2019	Présidente Louvain School of Statistics, Biostatistics and Actuarial Sciences (LSBA)

## Research Activities

### PUBLICATIONS

#### ➤ METRICS

##### ▪ Google Scholar

[http://scholar.google.be/citations?hl=fr&user=kI1MyRYAAAAJ&view\\_op=list\\_works&gmla=AJsN-F7XtEx0r4iLjqvKM4rGzudcV1dT7H6zW\\_ytYp8x9V0kkDzBkU8cQTVLbpmNGvpUrmjnxGS6DifmYytmaOvEksgKe7ZBeOb8ElkGNot\\_CPuf6huqVpGdOijWaOiWhLEpg5wYS06](http://scholar.google.be/citations?hl=fr&user=kI1MyRYAAAAJ&view_op=list_works&gmla=AJsN-F7XtEx0r4iLjqvKM4rGzudcV1dT7H6zW_ytYp8x9V0kkDzBkU8cQTVLbpmNGvpUrmjnxGS6DifmYytmaOvEksgKe7ZBeOb8ElkGNot_CPuf6huqVpGdOijWaOiWhLEpg5wYS06)

(Janv 2019)	All publications	Publications since 2014
<b>Citations</b>	6338	2427
<b>Indice h</b>	37	24
<b>Indice i10</b>	62	48

##### ▪ Research Gate :

[https://www.researchgate.net/profile/Catherine\\_Legrand2?ev=prf\\_high](https://www.researchgate.net/profile/Catherine_Legrand2?ev=prf_high)

#### ➤ BOOKS AND BOOK CHAPTERS

1. Assessing heterogeneity in clinical trials using the frailty model. Quantifying, interpreting and explaining heterogeneity over centers in multicenter cancer clinical trials. Legrand C. 2009. VDM Verlag Dr Müller Aktiengesellschaft & Co. KG. ISBN 978-3-639-21334-8.
2. Algorithm Survival Analysis. Gagliolo M, Legrand C. Invited book chapter, in: T. Bartz-Beielstein et al., eds., Empirical Methods for the Analysis of Optimization Algorithms, 2010, Springer, Berlin.
3. Cure models in oncology clinical trials. Legrand C., Bertrand A. Invited book chapter, to appear in: S. Halabi, S. Michiels, eds., Textbook of Clinical Trials in Oncology, Chapman & Hall/CRC Press I Taylor & Francis Group.

#### ➤ ARTICLES

2000

1. Long-Term Results of a Randomised Trial Comparing Breast-Conserving Therapy with Mastectomy: European Organisation for Research and Treatment of Cancer 10801 Trial. van Dongen J.A., Voogd A.C., Fentiman I.S., Legrand C., Sylvester R.J., Tong D., van der Schueren E., Helle P.A., van Zijl K., Bartelink H. *Journal of the National Cancer Institute* 92(14): 1143-1150, 2000.

2001

2. Radiographic diagnosis of rotator cuff tear based on the supraspinatus muscle radiodensity. Stallenberg B., Rommens J., Legrand C., de Maertelaer V., Metens T., Genevois P.A. *Skeletal Radiology* 30(1): 31-38, 2001.
3. Reduction of chemotherapy-induced febrile leucopenia by prophylactic use of ciprofloxacin and roxithromycin in small cell lung cancer patients: an EORTC double-blind placebo controlled phase III study. Tjan-Heijnen V.C.G., Postmus P.E., Ardizzoni A., Manegold C., Burghouts J., van Meerbeeck J., Gans S., Mollers M., Buchholz E., Biesma B., Legrand C., Debruyne C., Giaccone G. for the European Organisation for Research and Treatment of Cancer – Lung Cancer Group. *Annals of Oncology* 12(10):1359-1368, 2001.

## 2002

4. Statistical methodology of phase III cancer clinical trials: advances and future perspectives. Sylvester R., Van Glabbeke M., Collette L., Suci S., Baron B., Legrand C., Gorlia T., Collins G., Coens C., Declerck L., Therasse P. *European Journal of Cancer* 38 (Suppl 4): S162-168, 2002.
5. Treatment Outcome studies: pitfalls in current methods and practice. Legrand C., Sylvester R., Duchateau L., Janssen P., Therasse P. *European Journal of Cancer* 38(9): 1173-1180, 2002.
6. The Shared frailty model and the power for heterogeneity tests in multicenter trials. Duchateau L., Janssen P., Lindsey P., Legrand C., Nguti R., Sylvester R. *Computational Statistics & Data Analysis* 40(3): 603-620, 2002.
7. Standard versus intensified chemotherapy with G-CSF support in small cell lung cancer : A prospective EORTC LCG phase III trial (08923). Ardizzoni A., Tjan-Heijnen V.C.G., Postmus P.E., Buchholz E., Biesma B., Karnicka-Mlodkowska H., Dziadziuszko R., Burghouts J., van Meerbeeck J.P., Gans S., Legrand C., Debruyne C., Giaccone G. and Manegold C. for the European Organisation for Research and Treatment of Cancer – Lung Cancer Group. *Journal of Clinical Oncology* 20(19): 3947-3955, 2002.

## 2003

8. European Organization for Research and Treatment of Cancer (EORTC) 08957 Phase II study of topotecan in combination with cisplatin as second line treatment of refractory and sensitive small cell lung cancer (SCLC). Ardizzoni A., Manegold C., Debruyne C., Gaafar R., Buchholz E., Smit E., Lianes P., Ten Velde G., Bosquee L., Legrand C., Neumaier C., King K. and Giaccone G. for the EORTC Lung Cancer Group. *Cancer Clinical Research* 9(1): 143-150, 2003.
9. Treatment of operable breast cancer in the elderly : a randomised clinical trial EORTC 10850 comparing modified radical mastectomy with tumourectomy plus tamoxifen. Fentiman I.S., van Zijl J., Karydas I., Chaudary M.A., Margreiter R., Legrand C., Therasse P. *European Journal of Cancer* 39(3): 300-308, 2003.
10. Treatment of operable breast cancer in the elderly : a randomised clinical trial EORTC 10851 comparing tamoxifen alone with modified radical mastectomy. Fentiman I.S., Christiaens M.R., Paridaens R., Van Geel A., Rutgers E., Berner J., de Keiser G, Wildiers J., Nagadowska M., Legrand C., Therasse P. *European Journal of Cancer* 39(3): 309-316, 2003.
11. The activity of raltitrexed (Tomudex) in Malignant Pleural Mesothelioma : An EORTC phase II study (08992). Baas P., Ardizzoni A., Grossi F., Nackaerts K., Numico G., van Marck E., van de Vijver M., Monetti F., Smid-Geirnaerd M.J.A., van Zandwijk N., Debruyne C., Legrand C. and Giaccone G. on behalf of the EORTC Lung Cancer Group. *European Journal of Cancer* 39(3) : 353-357, 2003.
12. Carboplatin and paclitaxol (Taxol) as an Induction Regimen for Patients With Biopsy-Proven Stage IIIA N2 Non-Small-Cell Lung Cancer: An EORTC Phase II Study (EORTC 08958). O'Brien M.E.R., Splinter T., Smit E.F., Biesma V, Krzakowski M., Tjan-Heijnen V.C.G., Van Bochove A., Stigt J., Smid-Geirnaerd M.J.A., Debruyne C., Legrand C., and Giaccone G. for the EORTC Lung Cancer Group. *European Journal of Cancer* 39(10): 1416-1422, 2003.
13. Temolozomide in patients with advanced non-small cell lung cancer with and without brain metastases : A phase II study of the EORTC Lung Cancer Group (08965). Dziadziuszko R., Ardizzoni A., Postmus P.E., Smit E.F., Price A., Debruyne C., Legrand C., Giaccone G. on behalf of the EORTC Lung Cancer Group. *European Journal of Cancer* 39(9): 1271-1276, 2003.
14. Three-arm randomized study of two cisplatin-based regimens and paclitaxel plus gemcitabine in advanced non-small cell lung cancer. A phase III trial of the EORTC Lung Cancer Group -- EORTC 08975.  
  
Smit E.F., van Meerbeeck J.P.A.M, Lianes P., Debruyne C., Legrand C., Schramel F., Smit H., Gaafar R., Biesma B., Manegold C., Neymark N., Giaccone G.; European Organization for Research and Treatment of Cancer Lung Cancer Group. *Journal of Clinical Oncology* 21(21): 3909-3917, 2003.

## 2004

15. Hypofractionated external beam reirradiation of symptomatic non-small cell lung carcinoma (NSCLC) : an effective treatment ? Kramer G.W.P.M, Gans S., Ullmann E., van Meerbeeck J.P., Legrand C.L., Leer J-W.H. *International Journal of Radiation: Oncology-Biology-Physics*. 58 (5): 1388-1393, 2004.
16. Overexpression of P70 S6 kinase protein is associated with increased risk of locoregional recurrence in node-negative premonopausal early breast cancer patients. van der Hage J.A., van den Broek L.J., Legrand C., Clahsen P.C., Bosch C.J., Robanus-Maandag E.C, van de Velde C.J., van de Vijver M.J. *British Journal of Cancer* 90(8): 1543-1550, 2004.

## 2005

17. Morbidity and mortality in the surgery arm of EORTC 08941 trial. van Schil P., van Meerbeeck J., Kramer G., Splinter T., Legrand C., Giaccone G., Manegold C., Van Zandwijk N. *European Respiratory Journal* 26(2): 192-197, 2005.
18. Randomized phase III study of Cisplatin with or without Raltitrexed in patients with malignant pleural mesothelioma: an intergroup study of the European Organisation for Research and Treatment of Cancer Lung Cancer Group and the National Cancer Institute of Canada. van Meerbeeck J., Gafaar R., Manegold C., Van Klaveren R., Van Marck E., Vincent M., Legrand C., Bottomley A., Debruyne C., Giaccone G. *Journal of Clinical Oncology* 23(28): 6881-6889, 2005.
19. Phase III study of adjuvant vaccination with BEC2/Bacille Calmette-Guerin in responding patients with limited disease small cell lung cancer (European Organisation for Research and Treatment of Cancer 08971-08971b; Silva study). Giaccone G., Debruyne C., Felip E., Chapman P., Grant S., Millward M., Thiberville L., D'Addario G., Coens C., Rome L.S., Zatloukal P., Masso O., Legrand C. *Journal of Clinical Oncology* 23(28): 6854-6864, 2005.
20. A phase II study of Paclitaxel in advanced bronchioalveolar carcinoma (EORTC Trial 08956). Scagliotti G., Smit E., Bosquée L., O'Brien M., Ardizzoni A., Zatloukal P., Eberhardt W., Smid-Geirnaerd M., de Bruin Hein G., Dussenne S., Legrand C., Giaccone G., on behalf of the European Organisation for Research and Treatment of Cancer (EORTC) Lung Cancer Group. *Lung Cancer* 50(1): 91-96, 2005.
21. Effects of chemotherapy and hormonal therapy for early breast cancer on recurrence and 15-year survival: an overview of the randomised trials. Early Breast cancer Trialists' Collaborative Group (EBCTCG). *Lancet* 365(9472); 1687-1717, 2005.
22. A Bayesian approach to jointly estimate center and treatment by center heterogeneity in a proportional hazards model. Legrand C., Ducrocq V., Janssen P., Sylvester R., Duchateau L. *Statistics in Medicine*; 24(24): 3789-3804, 2005.

## 2006

23. Heterogeneity in disease free survival between centers: lessons learned from an EORTC breast cancer trial. Legrand C., Duchateau L., Sylvester R., Janssen P., van der Hage J.A., van de Velde C.J.H., Therasse P. *Clinical trials* 3(1): 10-18, 2006.
24. Short-Term Treatment-Related Symptoms and Quality of Life: Results From an International Randomized Phase III Study of Cisplatin With or Without Raltitrexed in Patients With Malignant Pleural Mesothelioma: An EORTC Lung-Cancer Group and National Cancer Institute, Canada, Intergroup Study. Bottomley A., Gaafar R., Manegold C., Burgers S., Coens C., Legrand C., Vincent M., Giaccone G., Van Meerbeeck J. *Journal of Clinical Oncology* 24(9): 1435-1442, 2006.
25. Quality assurance of thoracic radiotherapy in EORTC 08941: A randomized trial of surgery versus thoracic radiotherapy in patients with stage IIIA non-small-cell lung cancer (NSCLC) after response to induction chemotherapy. Kramer G.W.P.M., Legrand C.L., van Schil P., Uitterhoeve L., Smit E.F., Schramel F., Biesma B., Tjan-Heijnen V., van Zandwijk N., Splinter T., Giaccone G., van Meerbeeck J.P. on behalf of the EORTC Lung Cancer Group. *European Journal of Cancer* 42(10): 1391-1398, 2006.
26. Docetaxel and cisplatin as induction chemotherapy in patients with pathologically-proven stage IIIA N2 non-small cell lung cancer: a Phase II study of the European Organization for Research and Treatment of

Cancer (EORTC 08984). Biesma B., Manegold C., Smit H.J.M., Willems L., Legrand C., Passiukov A., van Meerbeeck J.P., Giaccone G., for the EORTC Lung Cancer Group. *European Journal of Cancer* 42(10): 1399-1406, 2006.

27. Is a patient's self-reported health-related quality of life a prognostic factor for survival in non-small-cell lung cancer patients? A multivariate analysis of prognostic factors of EORTC study 08975. Efficace F., Bottomley A., Smit E.F., Lianes P., Legrand C., Debruyne C., Schramel F., Smit H.J., Gaafar R., Biesma B., Mangeold C., Coens C., Giaccone G., Van Meerbeeck J.; the EORTC Lung Cancer Group and Quality of Life Unit. *Annals of Oncology* 17(11): 1698-1704, 2006.
28. Progression-free survival rate as primary endpoint for phase II cancer clinical trials: application to mesothelioma. The EORTC Lung Cancer Group. Francart J., Legrand C., Sylvester R., van Glabbeke M., van Meerbeeck J.P., Robert A. *Journal of Clinical Oncology* 24(19): 3007-3012, 2006.

#### 2007

29. Randomised trial of sequential versus concurrent chemo-radiotherapy in patients with non-small cell lung cancer (EORTC 08972-22973). Belderbos J., Uitterhoeve L., van Zandwijk N., Belderbos H., Rodrigus P., van de Vaart P., Price A., van Walree N., Legrand C., Dussenne S., Bartelink H., Giaccone G., Koning C.; on behalf of the EORTC LCG and RT Group. *European Journal of Cancer* 43(1): 114-121, 2007.
30. Lessons to learn from EORTC study 08981: A feasibility study of induction chemoradiotherapy followed by surgical resection for stage IIIB non-small cell lung cancer. Surmont V., van Klaveren R.J., Goor C., Schramel F., Manegold C., Legrand C., Van Schil P., Van Meerbeeck J.P. *Lung Cancer* 55(1): 95-99, 2007.
31. Comparison of different estimation procedures for proportional hazards model with random effects. Cortiñas Abrahantes J., Legrand C., Burzykowski T., Janssen P., Ducrocq V., Duchateau L. *Computational Statistics & Data Analysis* 51(8): 3913-3930, 2007.
32. Randomized Controlled Trial of Resection versus Radiotherapy after Induction Chemotherapy in Stage IIIA-N2 Non-Small Cell Lung Cancer. Van Meerbeeck J.P., Kramer G.W., Van Schil P.E., Legrand C., Smit E.F., Schramel F., Tjan-Heijnen V.C., Biesma B., Debruyne C., Van Zandwijk N., Splinter T.A.W. and Giaccone G. on behalf of the EORTC Lung Cancer Group. *Journal of the National Cancer Institute*. 2007; 99(6): 442-450.
33. Single-Dose Montelukast or Salmeterol as Protection Against Exercise-Induced Bronchoconstriction. Philip G., Pearlman D.S., Villaran C., Legrand C., Loeys T., Langdon R.B., Reiss T. F. *Chest*. 2007; 132(3): 875-883.
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35. Symptom and patient-reported wellbeing: Do they predict survival in Malignant Pleural Mesothelioma? A prognostic factor analysis of EORTC – NCIC 08983: Randomized phase III study of cisplatin with or without raltitrexed with malignant pleural mesothelioma. Bottomley A., Coens C., Efficace F., Gaafar R., Manegold C., Burgers S., Vincent M., Legrand C., van Meerbeeck J.P. *Journal of Clinical Oncology*. 2007; 25(36): 5770-5776.

#### 2009

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## 2010

39. A randomized, placebo-controlled study of intravenous montelukast for the treatment of acute asthma. Camargo C., Gurner D., Smithline H., Chapela R., Fabbri L., Green S., Legrand C., Malice M.-P., Dass S.B., Knorr B., Reiss T. *Journal of Allergy and Clinical Immunology*. 2010; 125(2) 374-380.
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## 2011

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## 2012

47. The effect of clinical covariates on the diagnostic and prognostic value of soluble mesothelin and megakaryocyte potentiating factor. Hollevoet K, Nackaerts K, Thas O, Thimpont J, Germonpré P, De Vuyst P, Bosquée L, Legrand C. Kellen E, Kishi Y, Delanghe JR, van Meerbeeck JP. *Chest*. 2012; 141(2):477-84.
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## 2013

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## 2014

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## 2015

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64. Melanoma burden by melanoma stage: Assessment through a disease transition model. Tromme I, Legrand C, Devleeschauwer B, Leiter U, Suci S, Eggermont A, Francart J, Calay F, Haagsma JA, Baurain JF,

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68. Incorporation of nested frailties into semiparametric multi-state models. Rotolo F, Rondeau V, Legrand C. *Statistics in Medicine*. 2016. Feb 20; 35(4):609-21. doi: 10.1002/sim.6734.
69. Statistical monitoring of data quality and consistency in the Stomach Cancer Adjuvant Multi-institutional Trial Group Trial. Timmermans C, Doffagne E, Venet D, Desmet L, Legrand C, Burzykowski T, Buyse M. *Gastric Cancer*. 2016; Vol 19(1):24-30. doi: 10.1007/s10120-015-0533-9.
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73. Robustness of estimation methods in a survival cure model with mismeasured covariates. Bertrand A, Legrand C, Léonard D, Van Keilegom I. *Computational Statistics & Data Analysis*. 2017, Vol. 113, p. 3-18. doi:10.1016/j.csda.2016.11.013. doi:<https://doi.org/10.1016/j.csda.2016.11.013>.
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75. Risk classification in life insurance and health insurance: extension to continuous covariates. Denuit M, Legrand C. *European Actuarial Journal*. 2018; 21: 611-619.
76. The Single-Index/Cox Mixture Cure Model. Amico M, Van Keilegom I, Legrand C. *Biometrics* 2018 Nov 14. doi: 10.1111/biom.12999. [Epub ahead of print]
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77. A note on tests for relevant differences with extremely large sample sizes. Callegaro A, Ndour C, Aris E, Legrand C. *Biometrical Journal*. 2019 Jan; 61(1): 162-165. doi: 10.1002/bimj.201800195. Epub 2018 Nov 11.
78. Vertical modeling: analysis of competing risks data with a cure fraction. Nicolaie MA, Taylor JMG, Legrand C. *Lifetime Data Anal*. 2019 Jan; 25(1): 1-25. doi: 10.1007/s10985-018-9417-8. [Epub ahead of print]
79. Inflammatory parameters associated with systemic reactogenicity following vaccination with adjuvanted hepatitis B vaccines in humans. Burny W, Marchant A, Hervé C, Callegaro A, Caubet M, Fissette L, Gheyle

- L, Legrand C, Ndour C, Tavares da Silva F, van der Most R, Willems F, Didierlaurent AM, Yarzabal J; ECR-008 study group. *Vaccine*. 2019 Mar; 37(14): 2004-2015. Doi: 10.1002/bimj.201800195. Epub 2018 Nov 11.
80. Flexible parametric approach to classical measurement error variance estimation without auxiliary data. Bertrand A, Van Keilegom I, Legrand C. *Biometrics*. 2019 Mar; 75(1): 1652-1669. doi: 10.1111/apt.14790. Epub 2018 May 8.
81. DNA alteration-based classification of uveal melanoma gives better prognostic stratification than immune infiltration, which has a neutral effect in high-risk group. Narasimhaiah D, Legrand C, Damotte D, Remark R, Munda, M, De Potter P, Coulie PG, Vikkula M, Godfraind C. *Cancer Medicine*. 2019. DOI: 10.1002/cam4.2122.
82. Joint Longitudinal and time-to-event cure models for the assessment of being cured. Barbieri A. and Legrand C. *Statistical Methods in Medical research*. 2019. [Accepted].
83. Adverse events during monitored anaesthesia care for gastrointestinal endoscopy in children: prevalence, predictors and contribution of anaesthetic agents in an observational study of 3435 cases. Najafi N, Veyckemans F, Vanhonacker D, Legrand C, Van de Velde A, Vandenplas Y, Poelaert J. *European Journal of Anaesthesiology*. 2019. [Accepted]

### ➤ MISCELLANEOUS

1. EORTC Fellow Profiles: Catherine Legrand. (*The European Journal of Cancer*, Vol 36, No 3, February 2000: pp 287)
2. J.P van Meerbeeck, C. Legrand, R.J. van Klaveren, G. Giaccone, on behalf of the EORTC Lung Cancer group. Letter to the editor regarding chemotherapy for non-small-cell lung cancer. *The Lancet*, Correspondence, Vol 358, October 13, 2001, page 1271.
3. Corrigendum to "Cost-effectiveness analysis in melanoma detection: A transition model applied to dermoscopy" [*Eur J Cancer* 67 (2016) 38-45]. Tromme I, Legrand C, Devleeschauwer B, Leiter U, Suci S, Eggermont A, Sacré L, Baurain JF, Thomas L, Beutels P, Speybroeck N. *Eur J Cancer*. 2017 Sep;82:247. doi: 10.1016/j.ejca.2017.06.001. Epub 2017 Jun 26.

### MAIN ORAL PRESENTATIONS

1. *The Frailty Model and the EM algorithm*. C. Legrand. Research Seminar of the Institut de Statistique et de Recherche Operationnelle (ISRO), Université Libre de Bruxelles. Bruxelles, Belgium. April 7, 2000.
2. *The Shared frailty model and the power for heterogeneity tests in multicenter trials*. C. Legrand, L. Duchateau, P. Janssen. The First Belgian-Dutch Biometric Conference 2001. Erperheide, Peer, Belgium. May 28-29, 2001.
3. *The shared frailty model and the power for heterogeneity tests in multicenter trials*. C. Legrand, L. Duchateau, P. Janssen, R. Sylvester. First Barcelona Workshop on Survival Analysis. Barcelona, Spain. June 12-14, 2002.
4. *Does it matter where you are treated ? A Treatment Outcome study based on clinical trial data*. C. Legrand, L. Duchateau, R. Sylvester P. Janssen. Third joint meeting of the Society for Clinical Trials and the International Society for Clinical Biostatistics. London, United Kingdom, July 20-24, 2003. *Controlled Clinical Trials*. 24:89 Suppl. 3 Jun 2003.
5. *A Bayesian approach to jointly estimate center and treatment by center interaction heterogeneity in a proportional hazards model*. C. Legrand, V. Ducrocq, P. Janssen, L. Duchateau, R. Sylvester. 25<sup>th</sup> Annual Conference of The International Society for Clinical Biostatistics. Leiden, The Netherlands, August 15-19, 2004.

6. *A new aspect of the statistical validation of the Allard prognostic index in bladder cancer.* C. Legrand, V. Ducrocq, P. Janssen, L. Duchateau, R. Sylvester. Invited Speaker for Scientific Presentation at the General Assembly of the Quetelet Society, Brussels, Belgium, April 15, 2008.
7. *A Bayesian approach to jointly estimate a random effect and a random interaction in a proportional hazards model.* Application to the validation of a prognostic index in bladder cancer patients. C. Legrand, L. Duchateau, P. Janssen, V. Ducrocq, R. Sylvester. Research Seminar of the Institute of Statistics, Université Catholique de Louvain, Louvain-la-Neuve, Belgium, May 16, 2008.
8. *Single arm vs. Randomized Studies.* C. Legrand. Invited Speaker Lung Cancer in Croatia Workshop, Zagreb, June 19-20, 2008.
9. *Implementation of interim analyses and Independent Data Monitoring Committee (IDMC) in large phase III cancer clinical trials.* C. Legrand. Research Seminar of the School of Public Health, Université Catholique de Louvain, Bruxelles, Belgium, Mars 4, 2009.
10. *My past experience at EORTC ... when life is not what the statistician would like it to be ...* C. Legrand. Research Seminar of the Institute for Medical Epidemiology, Biostatistics and Informatics, Medical Faculty, University Halle-Wittenberg, Halle, Germany, May 3-6 2009.
11. *On the use of the frailty model to address a new aspect of the statistical validation of prognostic indices for survival endpoints.* C. Legrand. Research Seminar at the Erasmus University Medical Center, Rotterdam, The Netherlands. December 7, 2009.
12. *Clinical trials in Oncology.* C. Legrand. Teaching Seminar of the EC-MSc-Radiobiology Course, Université Catholique de Louvain, Bruxelles, Belgium. Décembre 12, 2009.
13. *Frailty Models.* C. Legrand. Invited speaker Herbstworkshop Longitudinale und hochdimensionale daten. RheinAhr Campus Remagen, Gemany. November 19-20, 2009.
14. *Generalized conditional linear models with time varying coefficients under right censoring: practical implementation and extensions.* C. Legrand, L. Duchateau, P. Janssen. Research Seminar at the Medical University of Vienna, Center for Medical Statistics, Informatics and Intelligent Systems, Section for Clinical Biometrics. May 28, 2010.
15. *Sample size for phase III clinical trials in oncology: who, why, how ?* C. Legrand, N. Meyer. Research Seminar at the Centre Universitaire Hospitalier de Strasbourg. July 1<sup>st</sup>, 2010.
16. *A new insight in the validation of prognostic indices based on frailty models and an application to the validation of a prognostic index in bladder cancer patients.* C. Legrand. Invited Speaker. 2<sup>nd</sup> Conference of the Central European Network, Zurich, Switzerland. September 13, 2011.
17. *A general class of time-varying coefficients models for right censored data.* C. Legrand. Research Seminar ULB-UCL at the Université Libre de Bruxelles – Département de Mathématique, Institut de recherché en Statistique (ECARES). March 2nd, 2012.
18. *Clinical trials: statistical approach.* C. Legrand. Invited Speaker BCNBP National Day - CLINICAL TRIALS - DSM V. Leuven, Belgium. December 7, 2012.
19. *A general class of time-varying coefficients models for right censored data.* C. Legrand, M. Munda, P. Janssen, L. Duchateau. Oral Presentation. 34th Annual Conference of the International Society for Clinical Biostatistics. Munich, Germany, August 26-29, 2013
20. *Testing for decreasing heterogeneity in clinical trials.* C. Legrand, M. Munda, P. Janssen, L. Duchateau. Research Seminar INSERM U897 – ISPED, Université Bordeaux II – Victor Segalen, Bordeaux, France. December 13, 2013.
21. *Time dependency of prognostic index effect on time-to-event endpoints.* . C. Legrand, M. Munda, P. Janssen, L. Duchateau. Oral presentation. XXVIIth International Biometric Conference, Firenze, Italy, July 6-11, 2014.
22. *Some important statistical concepts in the design and analysis of clinical trials.* C. Legrand. Teaching Seminar. Advanced Master in Internal Medicine. Clinique Universitaire Saint-Luc, Brussels, Belgium. October 17, 2014.
23. *DALY, QALY, CEA: le cas du mélanome ... et le point de vue du statisticien.* C. Legrand. Applied Statistical Workshop, UCLouvain, Louvain-la-Neuve, Belgium. March 25, 2016.
24. *Why do I need statistics?* C. Legrand. Invited speaker. Quality in Endoscopy, Upper GI Endoscopy and neoplasia Conference. Berlin, Germany, April 15-16, 2016.
25. *Vertical modeling with a cure fraction (VMCF): analysis of competing risks data with a cure proportion.* C. Legrand, A. Nicolae, J. Taylor. Research Seminar Institut Gustave Roussy, Paris, France. May 19, 2016.
26. *Time-varying frailty model: what can we do ?* C. Legrand. Population-based Time-to-event Analyses International Conference. London School of Hygiene and Tropical Medicine, London, UK August 30-Septembre 2, 2016.

27. *Paul and Catherine: In the mood for frailty models.* C. Legrand. Invited Speaker. One-Day Symposium for the Emeritat of Prof. Paul Janssen. Hasselt University, Hasselt, Belgium. September 22, 2017.
28. *What make a good biostatistician ? Various skills for various roles.* C. Legrand. Invited Speaker. Biostatistics Symposium Tokyo University. Tokyo, Japan. March 14, 2018.
29. *A new alternative class of models to investigate a time dependent effect of a prognostic index on a time-to-event endpoint.* C. Legrand. Research Seminar. INSERM Cordeliers Research Center, Paris, France. March 26, 2018.
30. *Joint longitudinal-cure models to improve the assessment of being cured.* C. Legrand and A. Barbieri. Research Seminar. Université Paris Descartes, Paris, France. May 16, 2018.
31. *To use a cure model or not, is that the question?.* C. Legrand and A. Bertrand. 3<sup>rd</sup> Joint IDDI-UCLouvain Joint Workshop. UCLouvain, Louvain-la-Neuve, Belgium. December 11? 2018.

#### PRESENTATIONS GIVEN AT SHORT COURSES

- |                     |  |
|---------------------|--|
| April 6, 2004       | <p><b>“Trial design for targeted therapies: Statistics and methodology.”</b></p> <ul style="list-style-type: none"> <li>- One-day course led jointly with D. Machin.</li> <li>- Pre-conference Workshop. Phase III Clinical Trials in Oncology. Amsterdam, the Netherlands.</li> </ul>                                 |
| September 5-9, 2005 | <p><b>“Interim analyses, early stopping rules and Independent Data Monitoring Committee.”</b></p> <ul style="list-style-type: none"> <li>- Course on “Cancer Clinical Trials: Methods and Practice”. EORTC, Brussels, Belgium.</li> </ul>  |
| June 6-7, 2006      | <p><b>Statistical Concepts Course: “Inference I”, “Sample Size Calculation”, and “Survival Analysis”.</b></p> <ul style="list-style-type: none"> <li>- Merck Internal Course. Limelette, Belgium.</li> </ul>   |
| November 7, 2008    | <p><b>“Parametric proportional hazards model with gamma frailty”, and “Recurrent Events”.</b></p> <ul style="list-style-type: none"> <li>- Short Course on “Advanced Topics in Survival Analysis”, Symposium MSource, Belgium</li> </ul>   |
| June 18, 2009       | <p><b>“Parametric proportional hazards models with gamma-frailty” and “Recurrent events”.</b></p> <ul style="list-style-type: none"> <li>- Short Course Introduction and advanced in Survival Analysis. Applications in Clinical Trials. MSource-Life Science training Institute. Munich, Germany.</li> </ul>          |
| March 2010          | <p><b>“Statistics for Clinical Trials”</b></p> <ul style="list-style-type: none"> <li>- 10-days course at the Faculty of Medicine. Pham Ngoc Thach. Université de Ho Chi Minh (Vietnam). Mission CUI – UPNT03, Personnes responsables : ROBERT Annie (UCL, BE) et NGUYEN THE Dung, Vice-recteur (UPNT, VN).</li> </ul> |
| Since June 2003     | <p><b>“Sample size determination in phase III clinical trials”</b></p> <ul style="list-style-type: none"> <li>- Participation as Faculty Member and Lecturer to a 3-day yearly Course on Clinical Trial Statistics for Non Statisticians. EORTC. Brussels, Belgium.</li> </ul>   |

#### PROMOTOR OF PHD THESES

- |           |   |
|-----------|---|
| 2010-2014 | <b>Marco Munda.</b> “Beyond the shared frailty model. Goodness-of-fit, decreasing |
|-----------|---|

- heterogeneity, and spatial dependence”.  
Promotor : Catherine Legrand (UCL)  
Funding: FSR/FRIA
- 2010-2014 **Anne Benoit.** “Estimation of the efficacy of seasonal influenza vaccines: Vaccine development, statistical modelling and trial design”.  
Promotor : Catherine Legrand (UCL)  
Funding: Partenariat GSK-Biologicals
- 2011-2014 **Federico Rotolo.** “Frailty multi-state models for the analysis of survival data from multicenter clinical trials”.  
Promotors: Monica Chiogna (Universita degli Studi di Padova) and Catherine Legrand (UCL)  
Funding: PhD student at Dipartimento di Scienze Statistiche, Visiting PhD student at UCL
- 2012-2016 **Sylvie Scolas.** “Modelling interval-censored event times in the presence of a cure fraction: From building to refining”.  
Promotors: Anouar El Ghouch (UCL) and Catherine Legrand (UCL)  
Funding: UCL-ARC
- 2011-2017 **Aurélie Bertrand.** “Survival models with a cured fraction and mismeasured covariates”.  
Promotors: Ingrid Van Keilegom (UCL/KUL) and Catherine Legrand (UCL)  
Funding: Teaching assistant (LSBA)
- 2012-2018 **Mailis Amico.** “Semi-parametric mixture cure models”.  
Promotors: Ingrid Van Keilegom (UCL/KUL) and Catherine Legrand (UCL)  
Funding: Teaching assistant until 2016 (LSBA), ERC Ingrid Van Keilegom from 2016
- 2015-ongoing **Anne-Sophie Lambert.** “Quelles méthodes utiliser pour réaliser une analyse d’efficacité d’interventions complexes, à partir de base de données de routine, en tenant compte des caractéristiques des bénéficiaires et du contexte ? ”.  
Promotors: Jean Macq (UCL) and Catherine Legrand (UCL)  
Funding : Teaching assistant (Faculté Santé Publique)
- 2017-ongoing **Antoine Soetewey.** “Assurabilité des personnes ayant eu un cancer ou avec un risqué aggravé”.  
Promotors : Michel Denuit (UCL) and Catherine Legrand (UCL)  
Funding: Teaching assistant (LSBA).

#### MEMBER OF PHD JURY

1. Goele Massonet, Center for Statistics. Hasselt University, Belgium; 2008 - Contributions to frailty and copula modeling with applications to clinical trials and dairy cows data
2. Julie Francart, IREC, Université catholique de Louvain, Belgium ; 2010 - Progression-free survival rate as primary endpoint for phase-II cancer clinical trials: application to mesothelioma.
3. Evelien Vaes, IREC, Université catholique de Louvain, Belgium ; 2011 - Mathematical models integrating an ultrasound-based technology to improve the diagnosis of ovarian cancer.
4. Klara Goethals, Faculty of Veterinary Sciences, Ghent University, Belgium; 2011 - Multivariate Survival Models for Interval censored Udder Quarter Infection Times.
5. Jonathan Jaeger, ISBA-IMMAQ, Université catholique de Louvain (ISBA), Belgium ; 2012 - Functional estimation in systems defined by differential equations using Bayesian smoothing methods.
6. Yassin Mazroui, INSERM U897 – ISPED, Université Bordeaux Segalen, France, 2012 - Modélisation conjointe d'événements récurrents et d'un événement terminal: Applications aux données de cancer.
7. Bart Van Rompaye, Faculty of Sciences, Ghent University, Belgium, 2012 - Explaining time to cause-specific events: unidigging information amidst noise and errors in an imperfect world.

8. Agnès Chaumont, LTAP, Université catholique de Louvain, Belgium, 2013 - The significance of the associations between biomarkers of renal effects and cadmium at low environmental exposure
9. Bernard Francq, ISBA-IMMAQ, Université catholique de Louvain, Belgium, 2013 - Errors-in-variables regressions to assess equivalence in method comparison studies
10. Séverine Henrard, IRSS, Université catholique de Louvain, Belgium, 2013 - Impact d'une maladie rare sur la Santé Publique aujourd'hui et demain: le cas de l'hémophilie
11. Yehenew Getachew Kifle, Faculty of Veterinary Sciences, Ghent University, Belgium, 2013
12. David Dejardin, Faculty of Sciences, KU Leuven, Belgium, 2013
13. Mbéry Sène, INSERM U897 – ISPED, Université Bordeaux Segalen, France, 2013
14. Mioara Alina Nicolae, Faculty of Sciences, LUMC, The Netherlands, 2014
15. Mathieu Pigeon, ISBA-IMMAQ, Université catholique de Louvain, Belgium, 2014
16. Aleksandar Sujica, ISBA-IMMAQ, Université catholique de Louvain, Belgium, 2014
17. Elzery Andrinopoulou, Faculty of Medicine, Erasmus Medical Center Rotterdam, The Netherlands, 2014
18. Nathalie Grafféo, Faculté de Médecine de Marseille, Aix-Marseille Université, France, 2014
19. Isabelle Tromme, IREC, Université catholique de Louvain, 2015
20. Diana Pietzner, faculty of Medicine, Martin-Luther University Halle-Wittenberg, Germany, 2015
21. Majda Talamakrouni, ISBA-IMMAQ, Université catholique de Louvain, 2015
22. Agnieska Krol, INSERM U897 – ISPED, Université Bordeaux Segalen, France, 2016
23. Aysun Cetinyürek Yavuz. Faculty of Sciences, UIG, 2016.
24. Vincent Bremhorst, ISBA-IMMAQ, Université catholique de Louvain, Belgium, 2017

#### GRANTS, RESEARCH CONTRACTS AND FINANCED PROJECTS

- 2018-2020     **UCLouvain Promotor of BIOWIN project** (Pôle de compétitivité Région Wallone) **BENEFIT**  
Collaborative project with IDDI, BMS, EORTC, UCLouvain and Hopitaux Universitaires de Lyon.
- 2016-2017     **Promotor of Subvention BEWARE Fellowships Academia 2015-1 STADOC**  
Développement d'outils STatistiques pour l'Analyse de DONnées Complexes: application aux associations entre réactogénicité et réponse immunitaire innée/adaptative liées aux vaccins adjuvantés chez l'homme. (Convention 1510396)
- 2012-2016     **Co-investigator of IAP network** (Interuniversity Attraction Pole)  
Developing crucial statistical methods for understanding major complex dynamic systems in natural, biomedical and social sciences (StUDyS) (Phase VII, contract P7/06)
- 2011-2016     **Co-promotor of UCL ARC project** (Action de Recherche Concertée)  
Semiparametric inference for survival and cure models (Contract 11/16-039)
- 2011-2014     **Promotor FRIA Grant** (Fonds pour la formation à la recherche dans l'industrie et dans l'agriculture, FNRS)  
Specification of the frailty density in a frailty model and application to the analysis of data from multicenter clinical trials (Grant Holder: M. Munda, Promotor: C Legrand)
- 2011-2014     **Co-investigator of FRFC project** (Fonds de la Recherche Fondamentale Collective)  
Semiparametric inference for cure models (Convention 2.4507.11)
- 2011-2014     **Promotor Partnership GSK Biologicals – UCL** (Amendment to the convention `Chaire de médecine générale GSK Biologicals - UCL consacrée à l'étude de la fragilité de la personne âgée)  
Identification of a statistical model for the estimation of the vaccine efficacy of an influenza vaccine
- 2011-2013     **UCL Promotor of BIOWIN project** (Pôle de compétitivité Région Wallone)  
Statistical monitoring applied to research trials 5SMART)  
Collaborative project with IDDI, GSK Biologics, UCL and ULB.
- 2009-2010     **Promotor of FSR project** (Fonds Spécial pour la recherche)  
Specification of the frailty density in a frailty model and application to the analysis of data from multicenter clinical trials.



2007-2011    **Co-investigator of IAP network** (Interuniversity Attraction Pole)  
Statistical analysis of association and dependence in complex data (Phase VI, contract P6/03)

## SERVICES TO THE COMMUNITY

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### STATISTICAL EXPERTISE ON EXTERNAL PROJECTS

1. **External Validator** for KCE Report on “The volume of surgical interventions and its impact on the outcome: feasibility study based on Belgian data”. KCE - Belgian Health Care Knowledge Centre. [2009]
2. **External expert** for monitoring of KCE Project “Quality assurance in rectal cancer phase III: statistical methods to benchmark centres of a set of quality indicators.” KCE - Belgian Health Care Knowledge Centre. [2010-2012]
3. **External Statistician** of Independent Data Monitoring Committees for clinical trials
  - GSK-Biologicals - “MAGRIT trial MAGE-A3 as Adjuvant Non-Small Cell Lung Cancer ImmunoTherapy (109493)” and “PEARL trial: recPRAME +AS15 Antigen-Specific Cancer Immunotherapeutic as adjuvant therapy in patients with resected PRAME-positive, Non-Small Cell Lung”. [2009-2014]
  - GSK-Biologicals - “ROTA-081, 082 & 090 trial Immunogenicity and safety study of two formulations of GlaxoSmithKline (GSK) Biologicals’ human rotavirus (HRV) vaccine in healthy infants starting at age 6-12 weeks. (444563)”. [2016-ongoing]
  - GSK-Biologicals – “RSV Phase I/II, observer-blind, safety, reactogenicity and immunogenicity study of GSK Biologicals’ respiratory syncytial virus (RSV) vaccine GSK3844766A in subjects aged 18-40 or 60-80 years 208851 (RSV OA=ADJ-002). [2018-ongoing]
  - OSE Immunotherapeutics – “ATALANTE 1 - A randomized parallel group phase III trial of OSE 2101 as 2nd line or 3rd line compared with standard treatment (docetaxel or pemetrexed) in HLA-A2 positive patients with locally advanced (IIIB) unsuitable for radiotherapy or metastatic (IV) Non-Small-Cell Lung Cancer (OSE2101C301)”. [2017 – ongoing]
  - Galapagos – “Efficacy and safety of 3 doses of S201086/GLPG1972 administered orally once daily in patients with knee osteoarthritis. A 52-week international, multi-regional, multi-center, randomized double-blind placebo-controlled, dose-ranging study. (CL2-201086-002/GLPG1972-CL-201)”. [2018 – ongoing]
4. **External Statistical Expert** for the Agence Fédérale du Médicament et des Produits de Santé (AFMPS), Brussels, Belgium. [2011-ongoing]
5. **External Statistical Expert** for the Institut Roi Albert II (previously Centre du Cancer), Cliniques Universitaires Saint-Luc, Brussels, Belgium. [2011-ongoing]
6. **External Statistical Expert** for the KCE Trial Board. KCE - Belgian Health Care Knowledge Centre. [2011-ongoing]
7. **External Lecturer for ICE-ACADEMY, Ipsen** – Short trainings on “Statistical Design and Analysis of Clinical Trials” for medical doctors. [2014-ongoing]

### EDITORSHIPS / ASSOCIATE EDITORSHIPS

1. Associate Editor for “*Biometrics*”
2. Member of the Editorial Board of “Expert Review of Pharmacoeconomics and Outcomes Research”
3. Referee reports for: *Journal of Clinical Oncology*, *European Journal of Cancer*, *Statistics in Medicine*, *Statistical Modelling: An international Journal*, *Annals of the Institute of Statistical Mathematics*, *Computational Statistics and Data Analysis*, *Journal of Statistical Planning and Inference*, *Lifetime Data*

*Analysis, BMC Medical Research Methodology, EcoHealth, Journal of the Royal Statistical Society B, Biometrical Journal.*

## SERVICE TO THE PROFESSION

1. Member of the jury for the F.R.I.A. grants (Fonds pour la formation à la recherche dans l'industrie et dans l'agriculture , FNRS, Belgium) [2013-2018, Jury President 2016-2018].
2. Participation to scientific societies
  - International Biometric Society - IBS ([www.biometricsociety.org](http://www.biometricsociety.org))
    - Representative Council Member IBS [2011-2021]
    - Member of the Quetelet Society ([www.quetelet.be](http://www.quetelet.be)), Belgian Region of the International Biometric Society [since 2004] and elected member of the Board 2008-2015 [Vice-President 2013-2014, Président 2014-2015].
  - International Society for Clinical Biostatistics – ISCB ([www.iscb.info](http://www.iscb.info))
    - Elected member of the ISCB Executive Committee [2011-2012]
    - Member of the Vaccines Sub-Committee of the ISCB [2012-2013]
  - Board Member of the Three Country Corner (local group of the Royal Statistical Society) [since 2007]
  - Member of the SBS-BVS - Belgian Statistical Society (SBS-BVS, [www.sbs-bvs.be](http://www.sbs-bvs.be)) [since 2004]
    - Elected Board Member of the SBS-BVS Biostatistical Section since 2006 [Treasurer 2008-2015, Président 2015-2016]
3. Member of the Scientific/Organizing Committee for various conferences (non-exhaustive list).
  - IAP Workshop “Workshop on Missing Information in Survival Data. Beyond Right Censoring”, Ghent University, Belgium. September 18-20, 2008.
  - 2nd IBS Channel Network Conference, Gent, Belgium. April 6-9, 2009.
  - 30th Annual Conference of the International Society for Clinical Biostatistics (ISCB), Prague, Czech Republic. August 23-27, 2009.
  - 16th Annual Meeting of the Belgian Statistical Society, Lommel, Belgium, October 14-16, 2009.
  - 17th Annual Meeting of the Belgian Statistical Society, Spa, Belgium, October 13-15, 2010.
  - 3rd Conference of the International Biometric Society Channel Network, Bordeaux, France, April 11-13, 2011.
  - 20th Annual Meeting of the Belgian Statistical Society, Liège, Belgium, October 24-26, 2012.
  - International Workshop “One day Workshop on Cure Models. What if we don't all die?”. Université catholique de Louvain, Louvain-la-Neuve, March 22, 2013
  - 4th Conference of the International Biometric Society Channel Network, University of St Andrews, UK, July 3-5, 2013
  - 21th Annual Meeting of the Belgian Statistical Society, Gent, Belgium, October 9-11, 2013.
  - International Hexa-Symposium on Biostatistics, Bioinformatics, and Epidemiology, Hasselt University, Diepenbeek, Belgium, November 14- 15, 2013
  - Non-Clinical Statistics Conference, Brugges, Belgium, October 8-10, 2014
  - 22<sup>nd</sup> Annual Meeting of the Belgian Statistical Society (President of the Scientific Committee), Louvain-la-Neuve, November 6-7, 2014.
  - Complex time-to-event data Conference, Université catholique de Louvain, Louvain-la-Neuve, December 17-18, 2015.
4. Main organizer or co-organizer of the following short-courses.
  - Short Course: « An Introduction to Statistical genetics », Amy Anderson (Department of Mathematics, Western Washington University, USA). Université catholique de Louvain, Louvain-la-Neuve, November 22 and 23, 2007. Financing: FNRS Graduate School in Statistics and Actuarial Sciences
  - Short Course “Competing risks : a practical perspective », Melania Pintilie (Ontario Cancer Institute / University Health Network – University of Toronto). Université catholique de

- Louvain, Bruxelles, September 1-3, 2008. Financing: FNRS Graduate School in Statistics and Actuarial Sciences, FNRS Graduate School in Public Health, Health, Section Biostatistique de la Société Belge de Statistique.
- Short Course “Statistics in gene-mapping studies & SAS JMP genomics”, Amy Anderson (Department of Mathematics, Western Washington University, USA). Université catholique de Louvain, Bruxelles, September 16-18, 2008. Financing: FNRS Graduate School in Statistics and Actuarial Sciences, FNRS Graduate School in Public Health, Health and Society, Société Adolphe Quetelet.
  - Short Course “Clinical Trials”, Alessandra Giovagnoli (Department of Statistical Sciences, University of Bologna). Université catholique de Louvain, Louvain-la-Neuve, May 6-8, 2009. Financing: FSR
  - Short Course “Mixed Models Analysis of Medical Data Using SAS”, Helen Brown (Edinburgh University, UK), Philippe Lambert (Université de Liège). Université catholique de Louvain, Louvain-la-Neuve, 16-18 Septembre 2009. Financing: FNRS Graduate School in Statistics and Actuarial Sciences, SAS, IDDI, Société Adolphe Quetelet, Section Biostatistique de la Société Belge de Statistique.
  - Short Course – 1st IDDI-UCLouvain Joint Workshop “Fraud in Clinical Trial”. Université catholique de Louvain, Louvain-la-Neuve, April 20, 2015. Co-organised with IDDI.
  - Short Course – 2nd IDDI-UCLouvain Joint Workshop “Response assessment in Clinical Trial”. Université catholique de Louvain, Louvain-la-Neuve, March 11, 2016. Co-organised with IDDI.
  - Short Course – 3rd IDDI-UCLouvain Joint Workshop “Alternatives to PH modeling in Clinical Trials”. Université catholique de Louvain, Louvain-la-Neuve, December 11, 2018. Co-organised with IDDI.